

**IN THE CLAIMS**

Please cancel claims 1-5 without prejudice.

Please add new claims 6-20 as follows:

- 1-5. Canceled
6. (New) A system for detecting celiac disease in a human comprising:
  - a) an inert porous support wherein tissue transglutaminase antigen conjugated to a colored substance is deposited and dried, and wherein the support allows release and laminar flow of the conjugated antigen when contacted with a liquid sample; and
  - b) a membrane comprising a reactive zone which comprises immobilized tissue transglutaminase antigen.
7. (New) The system according to claim 6, wherein the system further comprises a control zone on the membrane, wherein the control zone comprises a control reagent which reacts with the conjugated antigen.
8. (New) The system according to claim 7, wherein the system further comprises an absorbent pad in contact with the membrane.
9. (New) The system according to claim 6, wherein the membrane is a nitrocellulose or nylon membrane.
10. (New) The system according to claim 9, wherein the membrane has a pore size between 5 to 10  $\mu\text{m}$ ;

11. (New) The system according to claim 9, wherein the control reagent is anti-transglutaminase antibody.
12. (New) The system according to claim 6, wherein the colored substance is colloidal gold.
13. (New) The system according to claim 6, wherein the colored substance is colored latex particles.
14. (New) The system according to claim 6, wherein the immobilized antigen is bound to the membrane by electrostatic and hydrophobic interactions.
15. (New) A method for detecting celiac disease in a human, the method comprising:
  - a) providing a system comprising:
    - (i) an inert porous support wherein tissue transglutaminase antigen conjugated to a colored substance is deposited and dried, and wherein the support allows release and laminar flow of the conjugated antigen when contacted with a liquid sample; and
    - (ii) a membrane comprising a reactive zone which comprises immobilized tissue transglutaminase antigen.
  - b) obtaining a liquid sample from the human
  - c) adding the liquid sample to the inert porous support containing tissue transglutaminase antigen conjugated to a colored substance, wherein the conjugated antigen and/or immunocomplexes formed between antibodies in the sample and the conjugated antigen migrate to the reactive zone by laminar flow; and
  - d) detecting reaction of the immunocomplexes described in step c) with the immobilized antigen,wherein presence of the reaction immunocomplexes with the immobilized antigen indicates celiac disease in the human.

16. (New) The method according to claim 15, wherein the membrane further comprises a control zone, wherein the control zone comprises a control reagent which reacts with the conjugated antigen.
17. (New) The method according to claim 16, wherein the method further comprises detecting reaction of the conjugated antigen with the control reagent, wherein presence of the reaction of the conjugated antigen with the control reagent indicates performance of the method.
18. (New) The method according to claim 15, wherein the sample is blood.
19. (New) The method according to claim 15, wherein the sample is plasma.
20. (New) The method according to claim 15, wherein the sample is serum.